

APPLICATION FOR ECOLOGICAL RESERVE

1. Legal description of the area (or general "Metes and bounds" description)
Flora Islet, and surrounding tidelands and seafloor to a depth of 9 fathoms (16.5 m), except for the NW boundary, as indicated on attached maps.
2. Geographical location (relate to nearest settlement, mountain, river, etc.)
Flora Islet, just E of St. John Point, Hornby Island, Strait of Georgia
3. Indicate the biogeoclimatic zone of which the reserve is representative.
CDFa; Gulf Islands Biotic Area
4. Approximate total acreage.
1.3 ha (3.3 acres) of upland
14.0 ha (34 acres) of intertidal and subtidal land
5. Purpose of the reserve.
Conservation of small island with rich flora, spectacular spring wild-flower display, relatively undisturbed vegetation; and the surrounding intertidal and benthic marine life.
(a) Primary (state acreage)
(i) 1.3 ha of upland
(ii) 14 ha of intertidal and subtidal land
(b) Others if any (state acreage)

(c) Buffer areas (state acreage)

6. Attach a map and indicate: (a) the perimeters and acreage of the areas detailed in 5 above, and
(b) indicate the species and total timber volumes in these areas.
1 stunted Arbutus menziesii, otherwise treeless

Signature


Jim Pojar

I.B.P. Surveyor

SECTION CT: CONSERVATION OF TERRESTRIAL BIOLOGICAL COMMUNITIES

CHECK SHEET (Mark VII) FOR SURVEY OF IBP AREAS*

To be completed with reference to the GUIDE TO THE CHECK SHEET

Serial Number

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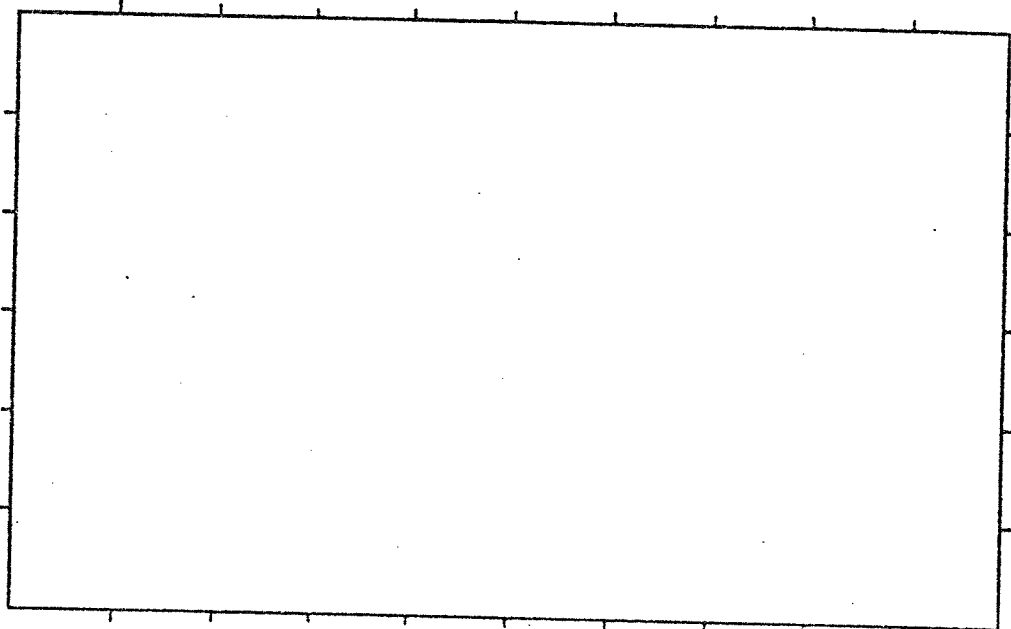
For Data
Centre Use
only

1.

1. Name of surveyor J. Pojar
2. Address of surveyor Ecological Reserves Unit, Victoria, B.C. V8V 1X5
.....
.....
3. Check Sheet completed (a) on site (b) from records X
4. Date Check Sheet completed September, 1976

2.

1. Name of IBP Area Flora Islet
2. Name of IBP Subdivision (or serial letter) CDFa; Gulf Islands Biotic Area
3. Map of IBP Area* showing boundaries attached? Yes X No
4. Sketch map of IBP Area*. Please mark direction of north, the scale and grid numbers where applicable.



* For "IBP Area", read IBP Area and/or IBP Subdivision.

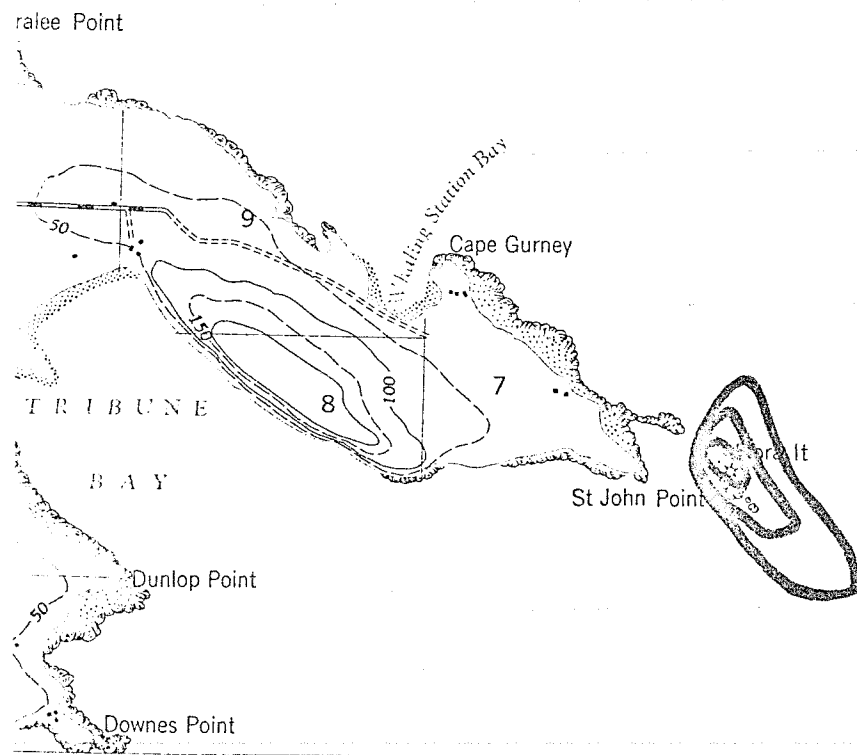
F
O
R
G
I
A

COMOX

BRITISH COLUMBIA

Scale 1:50,000
1.25 Inches to 1 Mile approximately

COMOX
92 F/10 EAST HALF
EDITION 1 ASE

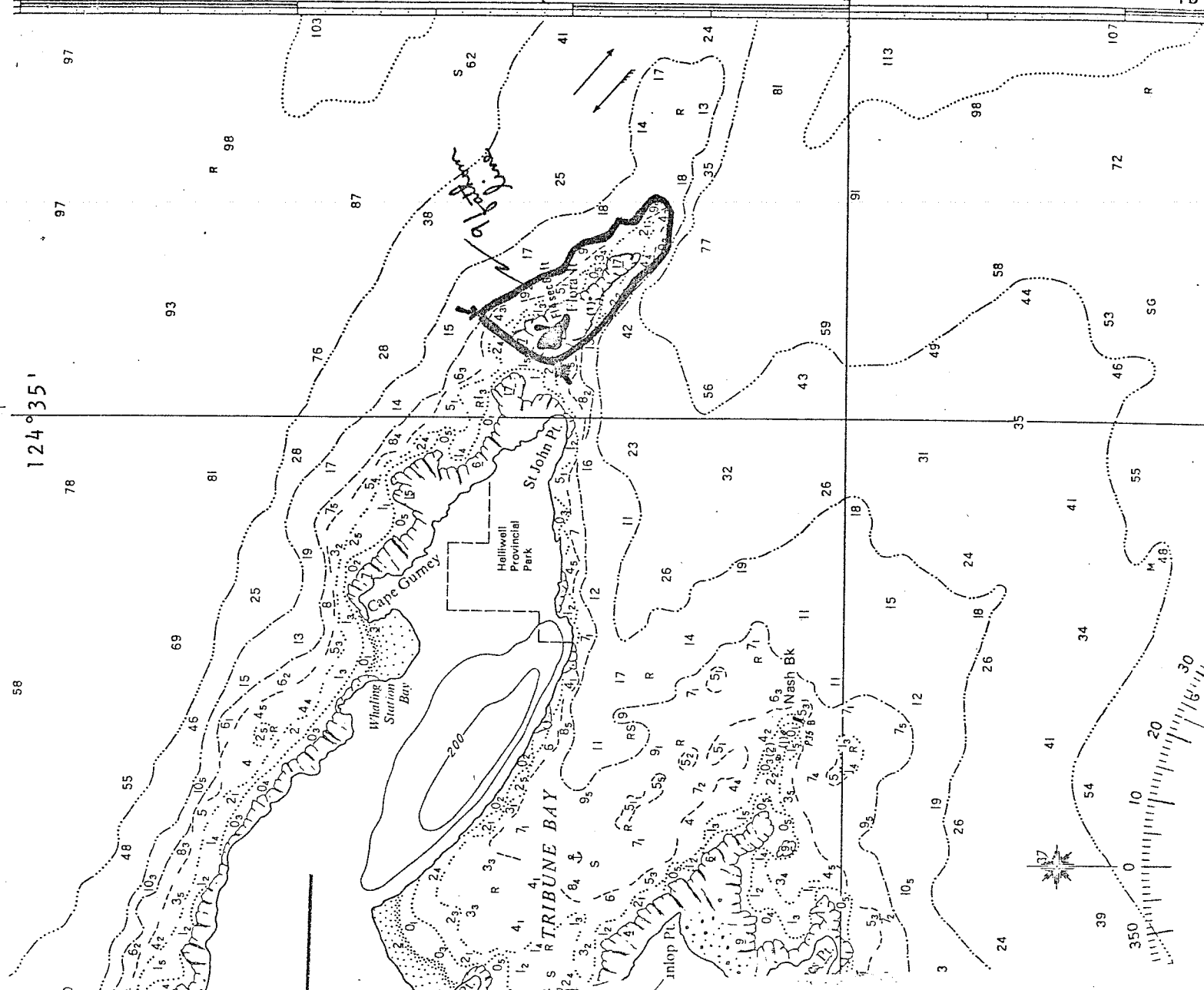


35'



49° 3'

17 d 30'



HORNBY ISLAND

BRITISH COLUMBIA - VANCOUVER ISLAND
 # 3532

BAYNES SOUND AND APPROACHES

Surveyed by the Canadian Hydrographic Service, 1969 - 71

Ger Δ : Lat. 49° 30' 25" 39N., Long. 124° 43' 41" 60W.

DEPTHS IN FATHOMS
 (under 11 in fathoms and feet)
 reduced to Lowest Normal Tides

Underlined figures on drying banks or in brackets against drying rocks express heights in feet above the datum of soundings, all other heights are expressed in feet above Higher High Water, Large Tides.

For complete list of Symbols and Abbreviations see Chart No. 1.

Scale 1:40,000 (Lat. 49° 30')

Projection: Mercator

3. Location of IBP Area*

1. Latitude..... 49 ° 30.6-31.3' N Longitude..... 124 ° 33.8-34.7' W

2. Country Canada

State or Province British Columbia County Gulf Islands

(State or Province County)

4. Administration

<u>National</u>	The island itself is:	The surrounding intertidal and subtidal lands are:
1. Official category	Private land	Crown Land
2. Address of administration	Comox Land District	Land Management Branch
	Folio 7556	B.C. Dept. of Environment
	District Lot #35	Parliament Buildings
	owner: Read Hayden	Victoria, B.C. V8V 1X5
	1400 Robson St.	
	Vancouver, B.C.	

International Class

3.

Included in U.N. List	Rejected from U.N. List	Area with formal conservation status	No formal cons. status
(A)	(B)	(C)	(D) X

5. Characteristics of IBP Area*

1. Surface area (state units of measurement) 1.3 ha. + 14 ha.....

2. Altitude (state units of measurement) Maximum 3 m

Minimum 9 fathoms

6. Climate

Nearest climatological station :

1. Name Texada Island*; Vananda**

2. Climatological station on IBP Area*? Yes No X.....

3. If (2) not, distance from edge of IBP Area* (state units) 18 km (11 mi.)*; 26 km (16 mi.)**

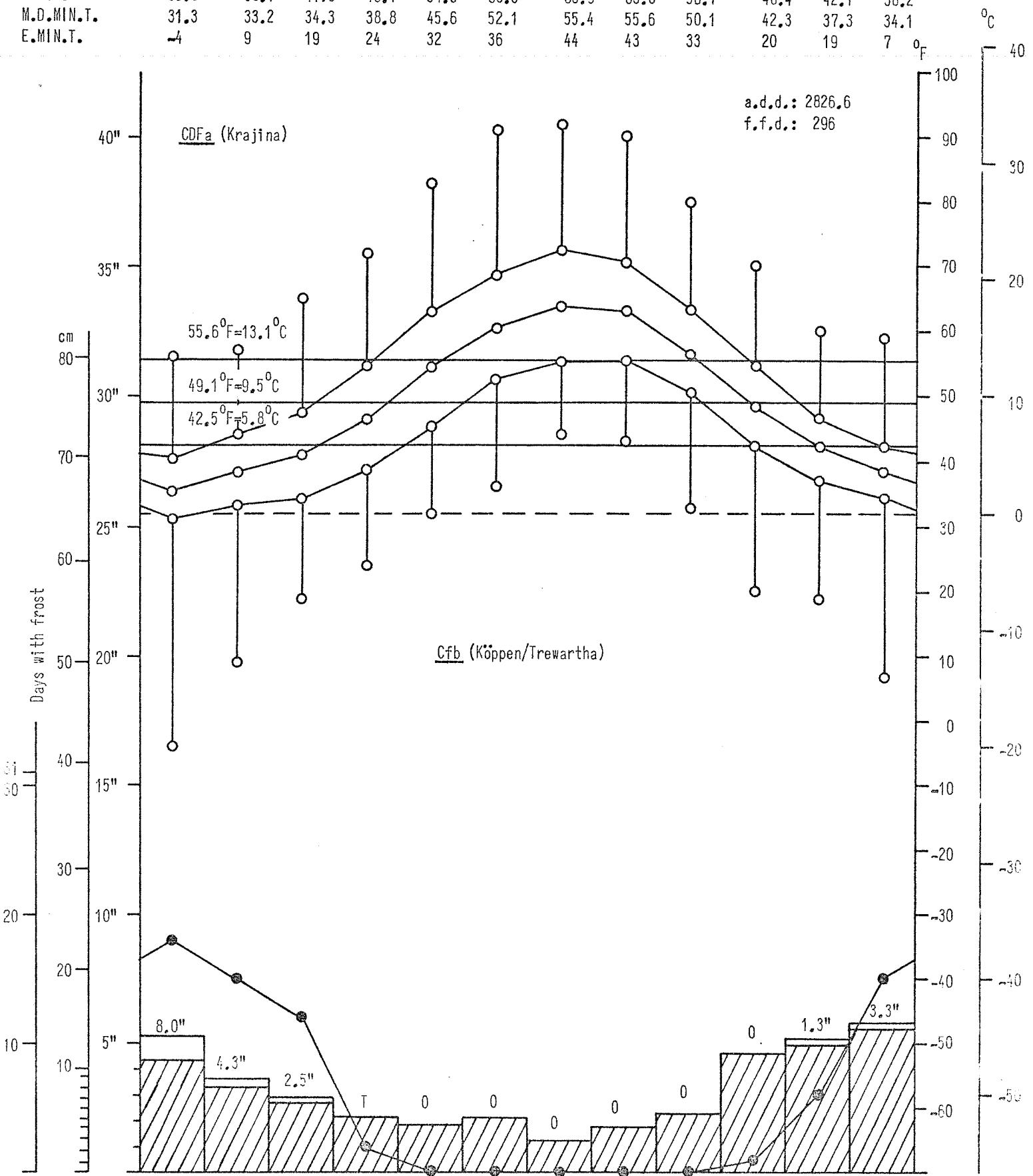
4. Direction from IBP Area* NE*; N**

5. Additional data sheet attached? Yes X - for Vananda No

VANANDA 49°45'N, 124°35'W, 40'ASL. Record: 32-36 years (adjusted).

Months above 50°F: 5, below 32°F: 0, A.M.T.P. 38.81", A.M.S.F. 19.4", snow % A.M.T.P.: 5.00, days with frost, yearly: 69.

E.MAX.T.	56	57	65	72	83	91	92	90	80	70	60	59
M.D.MAX.T.	40.2	44.2	47.7	54.6	63.0	68.4	72.4	70.4	63.3	54.5	46.8	42.2
M.D.T.	35.8	38.7	41.0	46.7	54.3	60.3	63.9	63.0	56.7	48.4	42.1	38.2
M.D.MIN.T.	31.3	33.2	34.3	38.8	45.6	52.1	55.4	55.6	50.1	42.3	37.3	34.1
E.MIN.T.	-4	9	19	24	32	36	44	43	33	20	19	7



Days with frost	18	15	12	2	0	0	0	0	0	1	6	15
M.M.T.P.	5.21	3.67	2.95	2.15	1.84	2.06	1.33	1.77	2.24	4.64	5.09	5.86
MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

7. Vegetation and Soil

1

Vegetation

Community Reference Number	Vegetation Code					Plant communities (give usual name using full Latin names of a species where applicable)	Area (state units)
	Primary Structural Group	Class	Group	Formation	Sub-Formation		
1	1	N	2	1		<i>Mimulus guttatus</i> - <i>Plectritis congesta</i> - <i>Montia (fontana, perfoliata)</i>	
2	1	M	2	2		<i>Festuca rubra</i> - <i>Aira praecox</i> - <i>Trifolium</i> spp. <i>Cerastium arvense</i>	
3	1	M	2	1		<i>Anthoxanthum odoratum</i> - <i>Camassia quamash</i> - <i>Ranunculus occidentalis</i>	
4	1	M	2	2		<i>Carex unilateralis</i> - <i>Myosurus minimus</i> - <i>Panicum scribnerianum</i>	
5	1	B	2	1	a	<i>Amelanchier alnifolia</i> - <i>Rosa nutkana</i> - <i>Symphoricarpos albus</i> - <i>Vicia gigantea</i> - <i>Montia perfoliata</i>	
6	2	G	2	1		<i>Elymus mollis</i> - <i>Lathyrus japonicus</i> - <i>Grindelia intergrifolia</i> - <i>Galium aparine</i>	
7	1	M	2	2		<i>Distichlis spicata</i> - <i>Salicornia virginica</i> (small amount)	
8							
9						- marine communities not surveyed	
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

SOME COMMON SPECIES OF FLORA ISLET PLANT COMMUNITIES, E.R.P. # 259:

1. *Mimulus* - *Plectritis* - *Montia* (vernal seepage vegetation over bedrock):

<i>Mimulus guttatus</i>	<i>Alchemilla occidentalis</i>	<i>Saxifraga integrifolia</i>
<i>Plectritis congesta</i>	<i>Orthocarpus pusillus</i>	<i>Arabis glabra</i> , <i>A. hirsuta</i>
<i>Montia fontana</i>	<i>Grindelia integrifolia</i>	<i>Hypochaeris radicata</i>
<i>Montia perfoliata</i> var. <i>glauca</i>	<i>Cerastium arvense</i>	<i>Hordeum brachyantherum</i>
<i>Collinsia grandiflora</i>	<i>Armeria maritima</i>	<i>Stellaria media</i>
	<i>Plantago bigelovii</i>	<i>Dermatocarpon</i> cf. <i>reticulatum</i>

2. *Festuca* - *Aira* - *Trifolium* - *Cerastium* (dry grassland):

<i>Festuca rubra</i>	<i>Orthocarpus pusillus</i>	<i>Plectritis congesta</i>
<i>Aira praecox</i>	<i>Calandrinia ciliata</i>	<i>Erodium cicutarium</i>
<i>Luzula campestris</i>	<i>Delphinium menziesii</i>	<i>Lithophragma bulbifera</i>
<i>Trifolium oliganthum</i>	<i>Allium acuminatum</i>	<i>Veronica arvensis</i>
<i>Trifolium tridentatum</i>	<i>Rumex acetosella</i>	<i>Lomatium utriculatum</i>
<i>Trifolium microcephalum</i>	<i>Eriophyllum lanatum</i>	<i>Montia</i> sp.
<i>Trifolium depauperatum</i>	<i>Achillea millefolium</i>	<i>Arctostaphylos uva-ursi</i>
<i>Cerastium arvense</i>	<i>Collinsia grandiflora</i>	<i>Rhacomitrium</i> spp.
<i>Opuntia fragilis</i>	<i>Plectritis macrocera</i>	<i>Polytrichum</i> spp.

3. *Anthoxanthum* - *Camassia* - *Ranunculus* (lush grass-forb meadow):

<i>Anthoxanthum odoratum</i>	<i>Dodecatheon pauciflorum</i>	<i>Viola adunca</i>
<i>Camassia quamash</i>	<i>Cerastium arvense</i>	<i>Sanicula crassicaulis</i>
<i>Ranunculus occidentalis</i>	<i>Fritillaria lanceolata</i>	<i>Sanicula bipinnatifida</i>
<i>Geranium mollis</i>	<i>Achillea millefolium</i>	<i>Sanicula graveolens</i>
<i>Myosotis</i> sp.	<i>Delphinium menziesii</i>	<i>Fragaria virginiana</i>
<i>Allium cernuum</i>	<i>Lomatium utriculatum</i>	<i>Rumex crispus</i>
<i>Trifolium tridentatum</i>	<i>Taraxacum officinale</i>	<i>Lithophragma parviflora</i>
<i>Trifolium oliganthum</i>	<i>Pteridium aquilinum</i>	<i>Rubus ursinus</i>

4. *Carex* - *Myosurus* - *Panicum* (vernal pool vegetation):

<i>Carex unilateralis</i>	<i>Plantago bigelovii</i>	<i>Juncus balticus</i>
<i>Myosurus minimus</i>	<i>Potentilla gracilis</i>	<i>Ranunculus</i> cf. <i>orthorhynchus</i>
<i>Panicum scribnerianum</i>	<i>Habenaria greenei</i>	

5. *Amelanchier* - *Rosa* - *Symphoricarpos* - *Vicia* - *Montia* (shrub thickets):

<i>Amelanchier alnifolia</i>	<i>Pyrus fusca</i>	<i>Fritillaria lanceolata</i>
<i>Rosa nutkana</i>	<i>Gaultheria shallon</i>	(<i>Elymus mollis</i>)
<i>Symphoricarpos albus</i>	<i>Arbutus menziesii</i>	(<i>Polystichum munitum</i>)
<i>Berberis aquifolium</i>	<i>Ribes sanguineum</i>	<i>Smilacina racemosa</i>
<i>Salix scouleriana</i>	<i>Vicia gigantea</i>	<i>Maianthemum dilatatum</i>
<i>Holodiscus discolor</i>	<i>Montia perfoliata</i>	<i>Pteridium aquilinum</i>
<i>Rubus ursinus</i>	<i>Camassia quamash</i>	

6. *Elymus* - *Lathyrus* - *Grindelia* - *Galium* (driftwood - shingle beach):

<i>Elymus mollis</i>	<i>Galium aparine</i>	<i>Montia perfoliata</i>
<i>Lathyrus japonicus</i>	<i>Lomatium nudicaule</i>	<i>Hordeum brachyantherum</i>
<i>Grindelia integrifolia</i>	<i>Cakile edentula</i>	<i>Plantago lanceolata</i>

7. *Distichlis* - *Salicornia* (salt marsh):

<i>Distichlis spicata</i>	<i>Salicornia pacifica</i>	<i>Armeria maritima</i>
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7.
(cont.)

2

Soil

Community Reference Number	Soil type	Other notes
1	I ₂	regosol
2	F ₃	lithic sombric brunisol
3	F ₄	brunisol
4	F ₄	gleyed brunisol
5	I ₂	regosol
6	I ₂	regosol
7	P _{2,0} /I ₂	gleyed regosol, humic regosol
8		
9		- bedrock is conglomerate and sandstone
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

9. Landscape

1. General Landscape (give brief description)
 small, low, tabular, rocky islet

2. Relief Type

	Flat	Undulating (0)-200 m.	Hilly 200-1000 m.	Mountainous > 1000 m.	%
Sharply dissected					
Gently dissected		100			100
Incised					
Skeletonised					
%		100			100%

3. Special landscape features (list)

10. Coastline of IBP Area*

1. Protected bays and/or inlets Many Few None

2. Substratum. % of coast

Rock	Boulder Beach	Shingle Beach	Sand Beach	Shell Beach	Mud	Coral	Ice
95		5					

3. Physiography. % of coast

Cliffed	Sloping	Flat
70	30	

4. Special Coastal Features (list)
 short (1-3 m) sea cliffs, fretted rock

5. Tide. Maximum range (state units of measurement) 5.2 m

6. Total length of coastline of Flora Islet:
 Less than 1 km. 1-10 km. Above 10 km.

11. Freshwater within IBP Area* NONE

1.

	Permanent	Intermittent
General		
Standing		
Running		

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps				
Ponds				
Lakes				

3. Running Water

	Permanent	Intermittent
Springs, cold		
Springs, hot		
Streams		
Rivers		

4. Special freshwater features

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12. Salt and Brackish Water within IBP Area* NONE

Salt Lakes	<input type="checkbox"/>	Lagoon	<input type="checkbox"/>	<input type="checkbox"/>
Estuaries	<input type="checkbox"/>	Salt pools	<input type="checkbox"/>	<input type="checkbox"/>

13. Adjacent Water Bodies (not within IBP Area*)

1. Fresh Lake River Stream

2. Salt and Brackish

Estuary	Salt lake	Salt pool	Lagoon	Ocean		
				X		

Strait of Georgia

14. Outstanding Floral and Faunal Features

1. None

2. Fauna

- marine life needs to be sampled

	Species diversity	Abundance of individuals	Superabundance of individuals	Rare species	Threatened/Relict species	Spp. of biogeographical interest	Exceptional Associations	Breeding or Nesting Populations	Migrating Populations	Wintering Populations		
Mammalia												
Aves		X							X			
Reptilia												
Amphibia												
Pisces		X										
Insecta		X										

3. Names of main threatened, endemic, relict and rare species

? - needs further investigation

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4. Flora

	Species diversity	Abundance of particular species	Rare species	Threatened/relict species	Spp. of biogeographical interest	Exceptional associations	Outstanding specimens						
Angiospermae :													
trees													
shrubs		X											
herbs		X	X	X	X								
grass		X		X	X								
Gymnospermae													
Pteridophyta													
Bryophyta		X											
Lichens and Algae		X			X								

5. Names of main threatened, endemic, relict and rare species

Myosurus minimus, Plantago bigelovii, Opuntia fragilis, Calandrinia ciliata, Trifolium depauperatum

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15. Exceptional Interest of IBP Area*

- outstanding area for wildflowers and marine life
 - especially significant in that vegetation has apparently suffered no domestic grazing (deer do occasionally cross over and graze on the islet) and in this respect Flora Islet is one of the least disturbed of all Gulf Islands
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-
-

16.

Significant Human Impact

1. General: None in entire IBP Area* X (marine subtidal)

None in part of IBP Area*

Impact on entire IBP Area*

2. Particular

	Past impact	Present impact	Trend			
			Increasing	Decreasing	No change	No information
Cultivation		X		X		
Drainage						
Other soil disturbance						
Grazing						
Selective flora disturbance						
Logging						
Plantation						
Hunting						
Removal of predators						
Pesticides						
Introductions — plants	X	X		X		
Introductions — animals	?					
Fire	X	X				
Permanent habitation						
Recreation and tourism	X	X	X			
Research						
Radio Tower and wooden storage bin have been erected on the islet.						

- someone has attempted to plant cabbage and Douglas-fir seedlings (they died)

- recurrent fires may be responsible for cycles in the vernal flower flush

3. Additional details on each type of impact attached?

X

Yes No

17. Conservation Status (required)

	Protection			Utilisation			Conservation Management			Permitted Research		
	none	partial	total	none	controlled	uncontrolled	none	to alter status	to maintain status	experimental	observational	prohibited
Flora			X	X					X	X	X	
Fauna			X	X					X	X	X	
Non-living			X		X		X				X	

18. References

1. List major biological/geographical references for the IBP Area.

Sheet attached? Yes No

2. List main maps available for the IBP Area.

List attached? Yes No 92 F/10E (Comox) (1:50,000)
 Canadian Hydrographic Service Chart #3532 (1:40,000)

3. Aerial photographs for the IBP Area available?

For whole area For part of area None

19. Other Relevant Information

- see attached sheet from Natural Areas Inventory of Islands Trust Area, by D.R. Benn et al.



Signed Jim Pojar
 (Surveyor)

NAME: Flora Island

NUMBER: 7

PRIORITY: Very High

MAP UNIT: 2-VMW-58, 2-MWR

FILE NO. 58

SIZE & LOCATION: Lies off St. John Point, east Hornby Island, Comox Land District, Folio 7556, District Lot #35, 3.30 acres.

OWNERSHIP: Read Hayden, 1400 Robson St., Vancouver, B.C.

SOURCES OF INFORMATION: Field Checks, Residents

PHOTOGRAPHIC REFERENCE: Prints: none
Slides: p. 57

NATURAL FEATURES: Vegetation, Marine, Wildlife

DESCRIPTION: Outstanding area for wildflowers and plant life as well as significant intertidal marine life; moderate bird watching opportunities. One of the least disturbed areas for forbes and vegetation generally due to no domestic (and apparently wild) ungulate grazing.

EVALUATION: Recommend strongly that Nature Conservancy attempt to purchase Flora Island as a nature park; was sold in 1974 (asking price was \$27,000); note proximity to Helliwell Park (about 40 yards across water).